

REMARKS

Claims 1, 3, 4, 12 and 24 are amended. Claims 1, 3-14 and 19-24 are pending in the application. Favorable reconsideration of the application is respectfully requested.

Claim rejections - 35 U.S.C. Section 103

Claims 1, 3-11, 19-20, 22 and 24 stand rejected under 35 U.S.C. Section 103(a) as being unpatentable over U.S. Pat. No. 5,508,510 to Lavery et al., ("Lavery I"), in view of U.S. Pat. No 5,903,373 to Jeffrey Welch et al. ("Welch"). Lavery I teaches a control system for a fluid control device that includes an impulse generator that allows manual range and dwell adjustments and includes a low battery indicator circuit that has battery status lights for indicating a "good", "weak" or "bad" condition for the battery. The system can include an optional remote unit for varying parameters, specifically remote range and dwell adjustments as described in column 13, line 25 to line 14, line 52, and for causing the battery status lights on the impulse unit to indicate the status of the battery, as described in column 13, lines 60-64.

In Applicants' system for facilitating communication between fixed and handheld devices, the fixed device has a normal mode in which ranging pulses are transmitted to detect the presence of an object within a predetermined area, a communication mode in which bidirectional communication is established between the fixed and the handheld devices and a Broadcast mode in which the fixed device initiates the transmission of a Broadcast signal indicating an error relating to an operating condition of the fixed device.

Changing between the normal and the communication mode and scanning for Broadcast signals are initiated by different user-initiated commands entered using the handheld device, allowing the user to select and control how communication is implemented between the fixed and handheld devices at any given time.

Claim 1 distinguishes over Lavery I by reciting the fixed device having a normal mode in which the first infrared transmitter transmits ranging pulses and the first infrared receiver detects those ranging pulses transmitted from the first infrared transmitter which are reflected by an object located in a predetermined area, a communication mode, allowing bidirectional communication between said handheld device, and a Broadcast mode initiated by the fixed device responsive to detection of an error relating to an operating condition of the fixed device, allowing the first infrared transmitter to transmit a Broadcast signal indicating the error. Claim 1 further recites the second control logic responsive to an initiation command provided by a user to cause an Attention signal to be transmitted to change the fixed device from the normal mode to the communication mode. In addition, Claim 1 recites the second control logic operating in a scanning mode in response to a further user-initiated command to initiate a scanning function to search for and detect Broadcast signals being transmitted by the first infrared transmitter. Method Claim 4 recites the normal, communication and Broadcast modes for the fixed device and the use of user-initiated commands for mode selection using the handheld device in a manner similar to Claim 1.

Claim 3, which is directed to a system for facilitating communication between a fluid dispensing device and a handheld control device, distinguishes over Lavery I by reciting the fluid dispensing device as having a normal mode in which ranging pulses are transmitted, a communication mode in which the second transmitter transmits signals to the handheld device, and a Broadcast mode. Claim 3 further recites broadcast control logic located in the fluid dispensing device and configured to operate in the Broadcast mode to emit from the second transmitter a Broadcast Signal indicating an error relating to an operating condition of the fluid dispensing device, and receiving control logic located in the handheld control device and configured to operate in a scanning mode in response to a user-initiated command to detect and identify the Broadcast Signal following receipt of the Broadcast signal by the first detector.

As indicated above, Lavery I discloses the use of the remote to provide only range and time adjustments and/or the actuation of battery status display lights on the impulse device. Although the ranging pulse generation function corresponds to Applicants' normal mode, Lavery I does not disclose transmission of an Attention signal in response to a user-initiated command to change the operating mode for the fixed device from the normal mode to the communication mode. In addition, no mention is made by Lavery I of operating the impulse unit in a Broadcast mode to transmit error signals, and the use of a further user-initiated command to cause the handheld device to search for Broadcast signals being transmitted by a fixed unit. Claims 1 and 4 further recite that operating in

the Broadcast mode to transmit Broadcast signals is initiated by the fixed device responsive to detection of an error.

Likewise, Welch, which teaches a method and apparatus for locating portable computers within an enclosed area, does not disclose or suggest a control unit for selecting operating modes for the computers from which data is being obtained, the use of operator-initiated commands in this regard, or the transmission of signals indicative of an operating error for computers from which data is being obtained. It is noted that Welch employs a fixed central controller for communicating with a plurality of portable computers, i.e., the sources of data are portable and the controller is fixed, just the opposite of the present invention, which is to provide a portable, handheld controller for monitoring and operating a plurality of fixed devices that can be located at diverse locations. Moreover, Welch does not provide any teaching as to use of a remote unit for selecting the operating mode of one or more fixed units using operator-initiated commands, or the transmission of signals indicative of an operating error for devices being monitored. Thus, it is submitted that Welch does not disclose or suggest modification of what is taught by Lavery I that would anticipate Claims 1, 3 and 4. Therefore it is submitted that Claims 1, 3 and 4 are patentable over Lavery I and Welch.

Claims 5-11, 19-20, 22 and 24 are dependent upon Claim 1. Claim 24 further distinguishes over Lavery I and Welch by reciting that the Broadcast signals are transmitted periodically and include data identifying the signal as a Broadcast signal, data

identifying the fixed device that has detected an error, and data indicating the type of error that has been detected. Claims 5-11, 19-20, 22 and 24, which are dependent upon Claim 1 are believed to be patentable along with parent Claim 1.

Claims 1, 4, 7-11 and 13 are rejected under 35 U.S.C. Section 103(a) as being unpatentable over U.S. Patent No. 4,916,613 to Lange et al., ("Lange") in view of U.S. Patent No. 5,769,120 to Laverty, Jr. et al., ("Laverty II"). As admitted in the Office Action, p. 4, lines 13-15, Lange does not teach the use of a handheld device. Lange teaches only the use of infrared transmitters and receivers. Lange teaches a system in which the state of the battery at the remote unit and the adjustment member are checked automatically and continuously, after the approach of every user and transmitted to the unit 12 without any intervention by the unit 12. Thus, Lange does not disclose the use of a portable handheld device to select the operating mode of one or more fixed units using operator-initiated commands, the transmission of signals indicative of an operating error for devices being monitored for detection by the handheld device when it is configured, by a user-initiated command, to operate in a scanning mode to search for signals being transmitted by control circuit associated with the remote unit. Moreover, Lange does not disclose user-initiated transmission of an Attention signal to change the operating mode of the fixed unit from a range signal transmitting mode to a communication mode.

The Examiner has cited Laverty II, Fig. 13, for teaching a handheld device. Laverty II is a division of the application of Laverty I, and claims 1 and 4 have been

distinguished over Lavery I for the reasons given above. For example, Lavery II discloses the use of the remote to provide only range and time adjustments and/or the actuation of battery status display lights on the impulse device. Although the ranging pulse generation function corresponds to Applicants' normal mode, Lavery I does not disclose transmission of an Attention signal in response to a user-initiated command. In addition, no mention is made by Lavery I of operating the impulse unit in a Broadcast mode to transmit error signals, together with the use of a further user-initiated command to search for Broadcast signals being transmitted by a fixed unit. Claims 1 and 4 also recite that operating in the Broadcast mode to transmit Broadcast signals is initiated by the fixed device responsive to detection of an error. Thus, it is submitted that Lavery II does not disclose or suggest modification of what is taught by Lange that would anticipate Claims 1 and 4.

Thus, it is submitted that the cited references do not teach or suggest all the limitations of the claims. Therefore, Claims 1 and 4 are believed to be patentable over Lange and Lavery II. Claims 7-11 and 13, which depend from Claim 1, are believed to be allowable at least because they depend from Claim 1.

Claims 12 and 21 stand rejected under 35 U.S.C. Section 103(a) as being unpatentable over U.S. Pat. No. 5,508,510 to Lavery et al. ("Lavery I"), in view of U.S. Pat. No. 5,903,373 to Jeffrey Welch et al. ("Welch"), and further in view of U.S. Pat. No. 6,125,482 to Frank Foster ("Foster") and U.S. Pat. No. 6,690,887 to Sano. Claims 12 and 21 are dependent upon Claim 1 which distinguishes over Lavery I and Welch for the

reasons given above. Foster cited for disclosing transmitting past operation data over a hard communication link, namely a cable, Sano, cited for teaching of an infrared wireless link, do not suggest modification of Lavery I and Welch that would make obvious the invention of Claim 1. therefore, Claims 12 and 21 are believed to be patentable along with parent Claim 1.

Claim 14 stands rejected under 35 U.S.C. Section 103(a) as being unpatentable over Lavery I and Welch, in view of admitted prior art. Claim 14, which is dependent upon Claim 1, is believed to be allowable at least because it depends from allowable Claim 1.

Claim 23 stands rejected under 35 U.S.C. Section 103(a) as being unpatentable over Lange and Lavery I, and further in view of U.S. Pat. No. 7,106,174 to George Powell ("Powell"). As noted above, Lavery I and Lange do not teach all the limitations of the Claim 1. Accordingly, Claim 23 is believed to be allowable at least because it depends from Claim 1.

Summary

In summary, Claims 1, 3-14 and 19-24 are believed to be allowable for all of the reasons given above. These claims remain pending and are in condition for allowance. Applicants respectfully request entry of the present Amendment and reconsideration of the application, with an early and favorable decision being solicited. Should the

Examiner believe that prosecution of the application could be expedited, the Examiner is requested to call Applicants' undersigned representative at the number listed below.

Respectfully submitted:

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